

Application No.: 10/604,275
Amendment dated: December 21, 2005
Reply to Office Action of July 21, 2005
Attorney Docket No.: 21295.56

b.) Amendments to Drawings:

The following sheet of drawings include changes to Fig.1. This sheet, which includes Fig.1, replaces the original sheeting including Fig.1.

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c.) Remarks

Claims 1-21 are pending in this application. Claims 1-21 are rejected. Claims 1-17 and 19-20 have been amended in various particulars as indicated hereinabove.

Claims 1, 2, 4-6, 8, 15-17 and 21 were rejected under 35 U.S.C. 102(b) over Yamamura et al. (US Patent 5,780,866). This rejection is respectfully traversed for the following reasons.

It is well established that a claim is anticipated under 35 U.S.C. §102, only if each and every element of the claim is found in a single prior art reference.¹ Moreover, to anticipate a claim under 35 U.S.C. §102, a single source must contain each and every element of the claim "arranged as in the claim."^{2,3} Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference.⁴ If each and every element of a claim is not found in a single reference, there can be no anticipation.

Yamamura discloses a method and apparatus for automatic focusing on circuit boards. The height profile in Yamamura is determined by scanning a circuit board, which shows an enormous varying height profile. Such height profile is caused by various elements on the circuit board. Contrary to Yamamura, the present invention detects the height profile caused by the scanning stage. The three-dimensional features of a wafer scanned by the method and apparatus of the present invention do not have the same variation in height as those of the printed circuit board. The three-dimensional features of the wafer are much smaller and, importantly, are within the focusing depth of the imaging system, as claimed in amended independent Claims 1 and 15, which never holds for the features of a printed circuit board of Yamamura. Therefore, each and every element of

¹ *Veregal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

² *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

³ *Lewmar Marine Inc. v. Barent, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q. 2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

⁴ *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

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amended independent Claims 1 and 15 are not found in Yamamura and the rejection under 35 U.S.C. §102 should be withdrawn and Claims 1 and 15 should be allowed.

Claims 2-14 depend off allowable Claim 1 and are allowable. Claims 16-21 depend off allowable Claims 15 and are allowable.

Claims 1-3, 6, 7, 9-16 and 18-20 were rejected under 35 U.S.C. 103(a) over Wang et al. (US Patent 5,804,813) in view of Fujimoto (US Patent No. 6,245,585). This rejection is respectfully traversed for the following reasons.

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a *prima facie* case of obviousness. The Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the cited publications, which must have a suggestion, teaching or motivation for one of ordinary skill in the art to modify a reference or combined references.⁵ The cited publications should explicitly provide a reasonable expectation of success, determined from the position of one of ordinary skill in the art at the time the invention was made.⁶

Similarly to the arguments presented above, Applicants respectfully assert that a combination of Wang and Fujimoto does not disclose all elements of independent amended Claims 1 and 15. In particular, the combination of Wang and Fujimoto does not disclose a method and apparatus in which the height profile caused by the scanning stage is detected. The three-dimensional features of a wafer imaged in the method and apparatus of the present invention are small and are within the focusing depth of the imaging system, as claimed in amended independent Claims 1 and 15. Therefore, the rejection under 35 U.S.C. 103(a) should be withdrawn. Independent amended Claims 1 and 15 are allowable over Wang in view of Fujimoto.

Claims 2-3, 6, 7, 9-14 depends off allowable Claim 1 and are allowable. Dependent Claims 16, 18-20 depend off allowable Claim 15 and are allowable.

Claim 16 was objected to because of informalities. Claim 16 has been amended to overcome these informalities.

⁵ *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

⁶ *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970);

Amgen v. Chugai Pharmaceuticals Co., 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996);

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Applicants believe that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,
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